5,000 gallons or less per week have until January 1, 1989, to comply with these standards.

The point of my statement was that fluoride levels of 10 ppm *in the public drinking water supply* do not exist in the United States. Calistoga mineral water and several other bottled mineral waters come from thermal aquifers that are not sources of public drinking water. The highest fluoride concentration of any of the several sources of public drinking water in the city of Calistoga is 0.23 ppm.

ROBERT ISMAN, DDS, MPH
Chief, Dental Health Section
Department of Health Services
714/744 P St
Sacramento, CA 95814

On the Meaning of Words

To the Editor: The words research, experiment, and investigate are frequently used interchangeably by members of the scientific community; standard dictionaries consider these words synonymous or analogous. No pertinent references concerning the definition or use of these words could be found in either the medical or legal libraries at the University of New Mexico.

That the concern over the interchangeable use of the words research, experiment, and investigate can be at times more than a mere exercise in semantics was brought to the attention of the authors when, during a recent trial, the plaintiff's attorney informed the jury, with emphasis, that the defendant had performed research on the plaintiff. This, despite the fact the plaintiff's attorney was well aware that the defendant had conscientiously engaged in laboratory research by doing an adequate series of experiments on dogs to investigate (determine) the feasibility of a new operation. The defendant had also presented his data to the Human Research Review Committee of the University of New Mexico School of Medicine.

We suggest that the words research, experiment, and investigate be reserved for the chemistry, biology, or animal laboratory and recommend that when the use of a new drug, device, procedure, or operation is applied to humans, the term clinical trial be used. In time, the distinction between laboratory research and clinical trial will, we hope, become more universally accepted. This would ameliorate confusion and the implication of assault on the human body. It might further deny some future plaintiff's attorney the opportunity of inaccurately implying that the defendant has treated a patient improperly.

FRED H. HANOLD, MD
Clinical Professor of Medicine
LAWRENCE H. WILKINSON, MD
Clinical Professor of Surgery
University of New Mexico School of Medicine
Albuquerque, NM 87131

The Yin and Yang of Medical Practice

To the Editor: I congratulate Drs Botticelli and Gilbert for attempting to clarify, in the July 1988 issue, the two factions of modern medical practice by presenting these aspects within the context of the yin yang wisdom.[1]

If we are truly sincere in our effort to bring a balance between the personal aspect of medicine—the patient/doctor/illness—and the impersonal aspect—technology, business, and politics of medicine—within the context of yin yang, we must start with the correct premise. For this we need to return to the I Ching, which states the positions of yin (earth) and yang (heaven) and what they further represent.

"Yang—the Creative is heaven, metal, cold, ice, the father . . .

"Yin—the Receptive is the earth, the mother. It is cloth, a kettle (to contain the creative process), it is level, it is a cow with a calf, a large wagon, form and the multitude. . . ."[2] (The opposite of the oneness of Yang.)

Technology is penetrating. Our patient is receptive.

Relationship requires receptivity from physician and patient and receptivity is the yin—the feminine principle. Technology and the other impersonal aspects of medicine, business, and politics belong to yang, the masculine principle. I agree so much with what you say, that the necessity now is a balance in our valuing equally each aspect, and yes, there should be no warring when we try to achieve balance.

War implies power, one over the other.

Balance implies union, and love, if you will allow.

The great danger that I find in modern medical practice is the apparent continued devaluation of the yin component and the overvaluation of yang; of advances in technologies, ever so fascinating and glamorous, and with impressive price tags escalating ever higher. The toys of medicine, I call them! Toys of the ever-searching scientific mind not always in touch with its yin principle, which at times loses itself in the mysteries that abound in our universe and often, carrying along the earthbound clinician, working in the real world of flesh, psyche, and disease, into that stratosphere of ideology and exquisite design.

Yes, we need a balance here and everywhere I look, it seems, in our present day world. Much of the disunity in which we abound is due very much to modern societies further devaluing yin, our mysterious mother, without whom there would be no life at all.

MARILYNN PRATT, MD
PO Box 5477
Playa Del Rey, CA 90296

REFERENCES

1. Botticelli MG, Gilbert FI: The yin and yang of medical practice. West J Med 1988; 149:108-110
2. Wielheim R, Baynes CF: The I Ching. Princeton, NJ, Princeton University Press, 1971, pp 275-276

Recent Trends in Lung and Breast Cancer Mortality in California Women

To the Editor: We would like to bring the following information to the attention of your readers.

Cancer is the second leading cause of death in California and the United States. In 1986, the last year for which there are complete state statistics, 46,412 people died of cancer in California. That equates to 23% of all deaths or an average of 127 deaths per day.

Lung cancer has long been the leading cause of cancer death for men in California and the nation; however, it has been the leading cause of cancer death for women in California only since 1983, when it surpassed breast cancer for the first time. California was one of the first states in which lung cancer became the leading cause of cancer death in women.

In 1986, there were 4,633 deaths due to lung cancer in California women (or approximately 13 deaths per day), and 4,107 breast cancer deaths (or about 11 deaths per day).

Lung cancer deaths among California women in 1986

exceeded breast cancer by an even larger amount than in previous years. In 1983, the death rate for lung cancer was 31.0 per 100,000 women; in 1986, this rate had increased to 34.0. Conversely, breast cancer deaths, which had long been the leading cause of cancer deaths for women, decreased from 30.9 in 1983 to 30.2 in 1986.

Since 1970, death rates for breast cancer have shown relatively little change, varying from a low of 28.7 deaths per 100,000 women in 1970 to a high of 30.9 in both 1982 and 1983. In contrast, death rates for lung cancer in women have more than doubled, rising from 14.4 per 100,000 in 1970 to 34.0 in 1986.

The most recent national data showed that the lung cancer death rate had increased for women, going from 29.8 per 100,000 women in 1984 to 31.6 in 1985. And while the 1985 national lung cancer death rate for women was lower than the breast cancer rate, the continued increase in lung cancer among women will probably make it the leading cause of cancer deaths nationally, in both men and women, in 1986, even though the national breast cancer rate seems to be increasing, rising from 32.5 deaths per 100,000 women in 1984 to 32.7 in 1985.

Unlike what has occurred in California, where lung cancer death rates for men are beginning a downward trend, the national rate of lung cancer in men continues to increase. The US lung cancer death rate per 100,000 men was 70.6 in 1983, 71.7 in 1984, and 72.2 in 1985.

It is well established that the major cause of lung cancer is cigarette smoking—for both men and women. Since the Surgeon General's report on smoking in 1965, the percentage of adult smokers in California and elsewhere has gradually decreased. For example, data from a statewide survey of California adults in 1979 showed that 34.5% of men and 30.2% of women smoked cigarettes, while in 1987, a similar statewide survey of adults found that 22.5% of men and 20.1% of women smoked.

Not unexpectedly, the number of deaths due to lung cancer in women continues to rise consistent with the overall increased number of women smokers in the past two decades and the long latency of tobacco-induced cancer. If the number of women who smoke continues to decline, as has occurred in very recent years, then this will be mirrored by a commensurate decrease in the rate of lung cancer among women, similar to what is now being seen among men in California. Unfortunately, though, such a change is not likely to occur for several years, and the lung cancer rate among women will probably continue to climb for some time.

KENNETH W. KIZER, MD, MPH
Director
SHEILA DUMBAULD
Research Analyst
Data Retrieval and Analysis Section
California Department of Health Services
714/744 P Street
Sacramento, CA 95814

Excisional Biopsy for the Suspicious Breast Mass

I READ WITH INTEREST "The Lumpy Breast" in the August issue.[1] The importance of the issues discussed cannot be overemphasized.

Perhaps it is my surgical background that makes me take exception to one part of the schematic for "the evaluation of a suspicious breast mass." The authors place an undue reliance on the result of the fine needle aspiration (FNA) and mammogram when they document a potential 30% false-negative rate on the mammogram and a possible 5% false-negative rate on FNA.

I think that a suspicious or dominant mass with a benign cytologic examination, regardless of the mammogram result, must be pursued with excisional biopsy. In my opinion, the "careful clinical follow-up every six months" of such a mass, as suggested in the paper, is contrary to the best interests of the patient.

HOWARD H. KAMINSKY, MD
Chair, Departments of Surgery
CIGNA Healthplans of California
1711 W Temple St
Los Angeles, CA 90026

REFERENCE

1. Grady D, Hodgkins ML, Goodson WH III: The lumpy breast. West J Med 1988; 149:226-229